

during an inflate/deflate cycle, the improved valve enclosure assembly being fluidly coupled intermediate the pump and the at least one air bladder for controlling the inflation of the at least one air bladder, comprising:

an enclosure defining a substantially fluidly sealed air chamber and having at least one air inlet to the air chamber being fluidly coupled to the pump; [and]

pressure monitor means being operably coupled to the processor and being in fluid communication with the at least one bladder for continuously monitoring the pressure in the at least one bladder
91
during an inflate/deflate cycle by monitoring the pressure in the air chamber, and

at least one valve being fluidly sealingly disposed in a valve aperture defined in the enclosure by a snap-fit engagement therewith and being in fluid communication with both the exterior of the enclosure and with the air chamber.

2 2. (Amended) [The improved valve enclosure assembly of claim 1 wherein] An improved valve enclosure assembly for use with an air inflatable mattress having at least one air bladder inflated by compressed air, a pump fluidly coupled to the at least one air bladder for providing compressed air thereto, and a processor for providing commands to the improved valve enclosure assembly during an

A 2

inflate/deflate cycle, the improved valve enclosure assembly being fluidly coupled intermediate the pump and the at least one air bladder for controlling the inflation of the at least one air bladder, comprising:

an enclosure defining a substantially fluidly sealed air chamber and having at least one air inlet to the air chamber being fluidly coupled to the pump, a plurality of guides and stops [are] being disposed within the enclosure for correctly positioning components within the enclosure; and

pressure monitor means being operably coupled to the processor and being in fluid communication with the at least one bladder for continuously monitoring the pressure in the at least one bladder.

4. ^{7.} (Amended) [The improved valve enclosure assembly of claim 1 further including] An improved valve enclosure assembly for use with an air inflatable mattress having at least one air bladder inflated by compressed air, a pump fluidly coupled to the at least one air bladder for providing compressed air thereto, and a processor for providing commands to the improved valve enclosure assembly during an inflate/deflate cycle, the improved valve enclosure assembly being fluidly coupled intermediate the pump and the at least one air bladder for controlling the inflation of the at least one air bladder, comprising:

an enclosure defining a substantially fluidly sealed air chamber
and having at least one air inlet to the air chamber being fluidly
coupled to the pump;

Q3
at least one valve being disposed within the enclosure, the at
least one valve being snap fit in an aperture defined in a wall of the
enclosure; and

pressure monitor means being operably coupled to the processor
and being in fluid communication with the at least one bladder for
continuously monitoring the pressure in the at least one bladder.

Q4
5
b N. (Amended) [The improved valve enclosure assembly of claim 1 wherein] An
improved valve enclosure assembly for use with an air inflatable mattress having at
least one air bladder inflated by compressed air, a pump fluidly coupled to the at
least one air bladder for providing compressed air thereto, and a processor for
providing commands to the improved valve enclosure assembly during an
inflate/deflate cycle, the improved valve enclosure assembly being fluidly coupled
intermediate the pump and the at least one air bladder for controlling the inflation
of the at least one air bladder, comprising:

an enclosure defining a substantially fluidly sealed air chamber
and having at least one air inlet to the air chamber being fluidly
coupled to the pump, the enclosure [is] being formed of an enclosure

portion and a rear cover portion, a flexible seal being compressively interposed between the enclosure portion and a rear cover portion to effect a substantially fluid tight seal therebetween; and

94

pressure monitor means being operably coupled to the processor and being in fluid communication with the at least one bladder for continuously monitoring the pressure in the at least one bladder.

9 18. (Amended) [The method of claim 16 wherein the existing pressure in the bladder is continuously monitored] A method of effecting a desired pressure in a bladder of an air inflatable mattress, comprising the steps of:

providing a commanded desired pressure of the bladder;
opening a valve fluidly coupled to the bladder;
continuously monitoring the existing pressure in the bladder at a tap on a valve enclosure assembly;
determining the differential between the existing pressure in the bladder and the desired pressure in the bladder;
exhausting air from the bladder through the valve when the differential indicates that the existing pressure in the bladder is greater than the desired pressure;

energizing a pump fluidly coupled to the valve for providing compressed air to the bladder when the differential indicates that the

29

desired pressure in the bladder is greater than the existing pressure in
the bladder to inflate the bladder; and

closing said valve when the existing pressure in the bladder
substantially equals the desired pressure in the bladder.

10 20. (Amended) [The improved valve enclosure assembly of claim 19 wherein]

An improved valve enclosure assembly for use with an air inflatable mattress
having at least one air bladder inflated by compressed air, a pump fluidly coupled to
the at least one air bladder for providing compressed air thereto, and a processor for
providing commands to the improved valve enclosure assembly during an
inflate/deflate cycle, the improved valve enclosure assembly being fluidly coupled
intermediate the pump and the at least one air bladder for controlling the inflation
of the at least one air bladder, comprising:

an enclosure defining a substantially fluidly sealed air chamber
and having at least one air inlet to the air chamber being fluidly
coupled to the pump;

at least one valve operably coupled to the enclosure being in
selective fluid communication with the air chamber and being in fluid
communication with the at least one air bladder for selectively fluidly
coupling the air chamber to at least one air bladder, the at least one

valve [has] having a valve housing, pressure monitor means being formed integral with said valve housing; and

pressure monitor means being operably coupled to the processor and being in fluid communication with the at least one valve for monitoring the pressure in the at least one bladder.

9

|| 21. (Amended) [The improved valve enclosure assembly of claim 19 further including] An improved valve enclosure assembly for use with an air inflatable mattress having at least one air bladder inflated by compressed air, a pump fluidly coupled to the at least one air bladder for providing compressed air thereto, and a processor for providing commands to the improved valve enclosure assembly during an inflate/deflate cycle, the improved valve enclosure assembly being fluidly coupled intermediate the pump and the at least one air bladder for controlling the inflation of the at least one air bladder, comprising:

an enclosure defining a substantially fluidly sealed air chamber and having at least one air inlet to the air chamber being fluidly coupled to the pump;

at least one valve operably coupled to the enclosure being in selective fluid communication with the air chamber and being in fluid communication with the at least one air bladder for selectively fluidly coupling the air chamber to at least one air bladder, the at least one

valve being fluidly sealingly disposed in a valve aperture defined in the enclosure by a snap-fit engagement therewith and being in fluid communication with both the exterior of the enclosure and with the air chamber; and

pressure monitor means being operably coupled to the processor and being in fluid communication with the at least one valve for monitoring the pressure in the at least one bladder.

(2)

11

22. (Amended) [The improved valve enclosure assembly of claim 19 wherein]

An improved valve enclosure assembly for use with an air inflatable mattress having at least one air bladder inflated by compressed air, a pump fluidly coupled to the at least one air bladder for providing compressed air thereto, and a processor for providing commands to the improved valve enclosure assembly during an inflate/deflate cycle, the improved valve enclosure assembly being fluidly coupled intermediate the pump and the at least one air bladder for controlling the inflation of the at least one air bladder, comprising:

an enclosure defining a substantially fluidly sealed air chamber and having at least one air inlet to the air chamber being fluidly coupled to the pump, a plurality of guides and stops [are] being disposed within the enclosure for correctly positioning components within the enclosure;

32

at least one valve operably coupled to the enclosure being in selective fluid communication with the air chamber and being in fluid communication with the at least one air bladder for selectively fluidly coupling the air chamber to at least one air bladder; and
Q 6 pressure monitor means being operably coupled to the processor and being in fluid communication with the at least one valve for monitoring the pressure in the at least one bladder.

14 24. (Amended) [The improved valve enclosure assembly of claim 19 further including] An improved valve enclosure assembly for use with an air inflatable mattress having at least one air bladder inflated by compressed air, a pump fluidly coupled to the at least one air bladder for providing compressed air thereto, and a processor for providing commands to the improved valve enclosure assembly during an inflate/deflate cycle, the improved valve enclosure assembly being fluidly coupled intermediate the pump and the at least one air bladder for controlling the inflation of the at least one air bladder, comprising:

an enclosure defining a substantially fluidly sealed air chamber and having at least one air inlet to the air chamber being fluidly coupled to the pump, at least one valve being disposed within the enclosure, the at least one valve being snap fit in an aperture defined in a wall of the enclosure;

at least one valve operably coupled to the enclosure being in selective fluid communication with the air chamber and being in fluid communication with the at least one air bladder for selectively fluidly coupling the air chamber to at least one air bladder; and
pressure monitor means being operably coupled to the processor and being in fluid communication with the at least one valve for monitoring the pressure in the at least one bladder.

97
15 25. (Amended) The improved valve enclosure assembly of claim *24* wherein the at least one valve disposed therein has a circumferential ramped face, said ramped face for compressively engaging a circumferential beveled face of the aperture to effect the snap fit of the at least one valve.

16 30. (Amended) [The improved valve enclosure assembly of claim *19* wherein]
An improved valve enclosure assembly for use with an air inflatable mattress having at least one air bladder inflated by compressed air, a pump fluidly coupled to the at least one air bladder for providing compressed air thereto, and a processor for providing commands to the improved valve enclosure assembly during an inflate/deflate cycle, the improved valve enclosure assembly being fluidly coupled intermediate the pump and the at least one air bladder for controlling the inflation of the at least one air bladder, comprising:

an enclosure defining a substantially fluidly sealed air chamber and having at least one air inlet to the air chamber being fluidly coupled to the pump, the enclosure [is] being formed of an enclosure portion and a rear cover portion, a flexible seal being compressively interposed between the enclosure portion and a rear cover portion to effect a substantially fluid tight seal therebetween;

a 8
at least one valve operably coupled to the enclosure being in selective fluid communication with the air chamber and being in fluid communication with the at least one air bladder for selectively fluidly coupling the air chamber to at least one air bladder; and

pressure monitor means being operably coupled to the processor and being in fluid communication with the at least one valve for monitoring the pressure in the at least one bladder.

Remarks

Claims 4-8, 13-15, 18, 20-25, and 30-32 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claim. Responsive thereto, claim 1 has been amended to include the limitations of claim 4. Claims 5, 7 13, 18, 20, 21, 22, 24, and 30 have been rewritten in independent form Claim 6 depends from claim 5, claim 8 depends from claim 7,